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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/797,563

03/11/2004

Kil-soo Jung

1793.1069

4832

49455 7590 12/27/2007

STEIN, MCEWEN & BUI, LLP  
1400 EYE STREET, NW  
SUITE 300  
WASHINGTON, DC 20005

EXAMINER

STANLEY, MARK P

ART UNIT

PAPER NUMBER

4157

MAIL DATE

DELIVERY MODE

12/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/797,563	<b>Applicant(s)</b> JUNG ET AL.	
	<b>Examiner</b> MARK P. STANLEY	<b>Art Unit</b> 4157	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14-25, 40-52 and 54-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-25, 40-52 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/25/2004, 11/30/2007</u> .                                  | 6) <input type="checkbox"/> Other: ____.                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 12-20, 25, 40-45, 52, 54, and 60-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Nonomura et al. (US 5,915,067 A hereinafter Nonomura).

**Regarding claim 1**, Nonomura discloses “an information storage medium, comprising:

at least one title which is reproduced as a motion picture; and” (col. 19, lines 23-24, Fig. 4, where a group of at least one VOB played in a set order determined by the PGC is considered a title which is reproduced as motion picture)

“at least one unit of attribute information,” (col. 19, line 29, Fig. 5) “which correspond to the at least one title and indicate whether a user is able to control one of the at least one title to be reproduced.” (col. 19, lines 42-45, Fig. 7, where the attribute table determines access to the title based on the level ID)

**Regarding claim 2**, Nonomura discloses “the information storage medium of claim 1, further comprising title information which indicates entry points of the at least one title corresponding to the attribute information” (col. 19, lines 33-35,

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lines 42-44, Fig. 6, the PGC chosen, based on the level ID matched with the attribute table, controls entry points and play order of the VOBs).

**Regarding claim 3,** Nonomura discloses “the information storage medium of claim 1, wherein each title is recorded with core mode data which includes audio/video data and navigation data reproducing the audio/video data” (Fig. 5, Fig. 9, core mode data is the audio/video data stored in the VOBs, and the navigation data is contained in the PGCs).

**Regarding claim 4,** Nonomura discloses “the information storage medium of claim 1, wherein each title includes at least one navigation object” (PGCs control the play order of the audio/video data grouped in the form of VOBs).

**Regarding claim 5,** Nonomura discloses “the information storage medium of claim 4, wherein the at least one navigation object includes a navigation command which provides a command to reproduce a playlist corresponding to the title” (the PGCs control the play order of the VOBs where the VOBs contain video and audio data pertaining to clips of the movie in order to reproduce to the title).

**Regarding claim 6,** the claim has been analyzed and rejected for the same reasoning as claim 5 above.

**Regarding claim 7**, the claim has been analyzed and rejected for the same reasoning as claim 5 above.

**Regarding claims 12**, Nonomura discloses “the information storage medium of claim 1, wherein the attribute information includes access type information which represents each title as “normal title” if user operation to the title is permitted and represents each title as “hidden title” if the user operation to the title is not permitted” ([0151]-[0152], Fig. 7, based on the attribute information in the table of Fig. 7 and the level ID of the user, when the title is viewable, the title is represented as a “normal title” where the user has control of the title, and that when the title is not viewable, the title is represented as a “hidden title” where the user does not have control of the title).

**Regarding claim 14**, the Nonomura discloses “a reproducing apparatus, comprising:

a reader which reads data comprising at least one title which is reproduced as a motion picture and at least one unit of title information that correspond to the titles from an information storage medium;” (Figs. 13A, 13B, item 82 the optical pick up is the reader)

“a buffer which buffers the data read by the reader; and” (col. 18, lines 14-21, Fig. 13B, where the buffer stores data read before processing by the system control unit or the AV decoder)

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“a decoder which interprets the title information to indicate an entry point of the title and reproduces the title,

wherein the decoder interprets attribute information contained in the title information to indicate whether a user is able control the title to be reproduced.” (col. 18, lines 9, 28, col. 19, lines 22-35, Fig. 13B, where the system control unit receives control information including attribute information read from the disc, it is inherent a decoder must be involved for the system control unit to be able to interpret control information read from the disc)

**Regarding claim 15**, the claim has been analyzed and rejected for the same reasoning as claims 3 and 14 above, where the reproducing apparatus performs the reproduction of the information storage medium in claim 3.

**Regarding claim 16**, the Nonomura discloses “the reproducing apparatus of claim 14, wherein the reader reads start up information, and the decoder searches the start up information for one title that is to be first reproduced” (col. 19, lines 8-21, Figs. 4-5, video manager information and video title set information is read from the disc for initial reproduction).

**Regarding claim 17**, the Nonomura discloses “the reproducing apparatus of claim 14, wherein the decoder executes at least one navigation object that is indicated by the entry point of each title” (col. 19, lines 22-35).

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**Regarding claim 18**, the claim has been analyzed and rejected for the same reasoning as claims 5 and 14 above, where the reproducing apparatus performs the reproduction of the information storage medium in claim 5.

**Regarding claim 19**, the claim has been analyzed and rejected for the same reasoning as claims 6 and 14 above, where the reproducing apparatus performs the reproduction of the information storage medium in claim 6.

**Regarding claim 20**, the claim has been analyzed and rejected for the same reasoning as claims 7 and 14 above, where the reproducing apparatus performs the reproduction of the information storage medium in claim 7.

**Regarding claim 25**, the claim has been analyzed and rejected for the same reasoning as claims 12 and 14 above, where the reproducing apparatus performs the reproduction of the information storage medium in claim 12.

**Regarding claim 40**, the claim has been analyzed and rejected for the same reasoning as claim 1 above.

**Regarding claim 41**, Nonomura discloses “the information storage medium of claim 40, wherein the title access type information further comprises title number display type information which indicates whether a title number of the corresponding title is displayed” (where the title number display type

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information is included within the attribute table when determining if a user has control access depending on their level ID).

**Regarding claim 42**, the claim has been analyzed and rejected for the same reasoning as claim 3 above, where the PGC contains reproduction paths and play order of the VOBs, and the user has control of trick mode options for switching between VOBs (col. 26, lines 8-16).

**Regarding claim 43**, the claim has been analyzed and rejected for the same reasoning as claims 16 and 17 above.

**Regarding claim 44**, Nonomura discloses “the information storage medium of claim 43, wherein the attribute information comprises title number display type information to reproduce a title number when a corresponding one of the titles is not controllable by the user” (Fig. 7).

**Regarding claim 45**, Nonomura discloses “the information storage medium of claim 44, wherein the index information further comprises:

menu information displaying a list of each title that is selectable and reproducible by the user from among the at least one title based on the attribute information” (col. 19, lines 16-21, lines 25-29).



**Regarding claim 52**, the claim has been analyzed and rejected for the same reasoning as claims 14 above.

**Regarding claim 54**, the claim has been analyzed and rejected for the same reasoning as claim 16 above, where the reproducing apparatus performs the reproduction of the information storage medium in claim 16.

**Regarding claims 60-61**, Nonomura discloses “the information storage medium of claim 12, wherein the user operation to the title is permitted when a value of the access type information is 0, and the user operation to the title is prohibited when the value of the access type information is 1”. a more complex attribute system with the use of an information storage medium involving a wider ranger of variables when determining user access to titles (col. 19, lines 33-35, lines 42-44, col. 24, lines 12-32, Fig. 7, the PGC available is based on the level ID matched with the attribute table of Fig. 7, where the PGC controls entry points and play order of the VOBs, where the number of level IDs can be a varying number as described in col. 24, lines 12-32, hence it is inherent if there are only two level IDs used, as null or 1, where null is representative of 0 giving permission and 1 giving restriction).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (*See MPEP Ch. 2141*)

- a. Determining the scope and contents of the prior art;
- b. Ascertaining the differences between the prior art and the claims in issue;
- c. Resolving the level of ordinary skill in the pertinent art; and
- d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

4. Claims 8-11, 21-24, 46, 48, 50-51, 55-59 and are rejected under 35

U.S.C. 103(a) as being unpatentable over Nonomura et al. (US 5,915,067 A

hereinafter Nonomura) in view of Kanazawa et al. (US 6,580,870 B1 hereinafter

Kanazawa)

**Regarding claims 8-11**, Nonomura discloses “the information storage medium of claim 1, wherein the at least one titles comprises:

core mode data which includes audio/video data and navigation data reproducing the audio/video data; and” (refer to claims 1 and 3 above)

“full mode data which includes program data that enables interaction with a user” (col. 15, lines, 1-4, col. 21, lines 33-35, Figs. 19-20, where the full mode data for interactive reproduction is included within the VOBs)

However, Nonomura does not explicitly state the use of “browsing data that enables Internet browsing”.

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Kanazawa discloses reproducing an interactive disc, where the browsing data store on a DVD medium in the form of an HTML file (col. 13, lines 66-67, col. 14, lines 1-7, Fig. 18) enables internet browsing (col. 15, lines 33-57, Figs. 19A, 19B, 20, item S106 where interactive internet browsing occurs during playback of the DVD).

It would have been obvious to one of ordinary in the art at the time the invention was made to have been motivated to combine the storage medium of Nonomura containing core mode data and full mode data without browsing data with that of Kanazawa containing browsing data for internet browsing. One would have been motivated to do so for an improved interactivity and access of information with the medium by providing internet browsing capabilities.

**Regarding claims 21-24**, the claim has been analyzed and rejected for the same reasoning as claims 8-11 above, where the reproducing apparatus performs the reproduction of the information storage medium.

**Regarding claims 46, 48, and 50**, the claims have been analyzed and rejected for the same reasoning as claims 8-11 above.

**Regarding claim 51**, Nonomura and Kanazawa do not explicitly state the information storage medium being compatible with a reproducing apparatus which only reproduces core mode data. However, it is well known in the art at the time of the invention was made that full mode data is not essential to reproduce

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the core mode A/V data of the information storage medium and it would have been expected that the information storage medium be capable of being reproduced only with core mode data by any apparatus capable of reproducing core mode data..

**Regarding claim 55**, the claim has been analyzed and rejected for the same reasoning as claims 8-11 above, where the reproducing apparatus performs the reproduction of the information storage medium.

**Regarding claim 56**, Nonomura discloses “the apparatus of claim 55, wherein the decoder comprises:

“a program engine decoding the program data and executing program commands from the decoded program data;

a navigation engine decoding navigation commands in the titles and the title information;” (col. 18, lines 9, 28, col. 19, lines 22-35, Fig. 13B, item 93 the system control unit)

“a presentation engine decoding the AV data; and” (Fig. 13B, item 85)

“an application manager controlling reproduction of the titles based on whether a portion of each title is startup information, core mode data, or full mode data and user input when the attribute information designates that the respective title is controllable by the user.” (col. 18, lines 9, 28, col. 19, lines 22-35, Fig. 13B, item 93 the system control unit, where full mode data does not include browsing data)

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Nonomura does not explicitly disclose the use of an application manager that controls full mode data with browsing data or a browsing engine, Kanazawa does disclose the use of “a browsing engine decoding the browsing data and executing browsing commands from the decoded browsing data” (col. 11, lines 11-15, Fig. 16, item 117) and the manager for controlling information (Fig. 16, item 201).

It would have been obvious to one of ordinary in the art at the time the invention was made to have been motivated to combine the reproduction apparatus of Nonomura with that of Kanazawa containing a browsing engine and control browsing data for internet browsing. One would have been motivated to do so for an improved interactivity and access of information with the medium for reproducing by providing internet browsing capabilities.

**Regarding claim 57-58**, Nonomura and Kanazawa further disclose using full mode data with core mode data, where a manager is used for interlocking the core mode data with the full mode data during reproduction (see Kanazawa col. 15, lines 34-45, Fig. 19A, interlocking interactive browsing data with core mode A/V data during reproduction), where the conversion of reproducing with core and full mode data is included in both the hidden titles and normal titles, hence mode conversion for reproducing both core and full mode data occurs when the hidden title is viewed..

**Regarding claim 59,** Nonomura discloses the system control unit controlling use of PGC, where in Figs. 6-8, each PGC is played in a predetermined order, and when a title is prohibited, the prohibited PGC is still intended to be decoded in a predetermined order.

5. Claims 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonomura et al. (US 5,915,067 A hereinafter Nonomura) in view of Kanazawa et al. (US 6,580,870 B1 hereinafter Kanazawa) and in further view of Chung (US 2003/0086693 A1 hereinafter Chung).

**Regarding claim 47,** Nonomura and Kanazawa further disclose the information storage medium of claim 46, wherein the program data comprises applications for interactive reproduction (see Nonomura col. 15, lines 29-42), but the use of Java is not explicitly stated. Chung discloses an information storage medium with interactive program data ([0008]), where the program data comprises Java applications ([0033], [0036], where a markup document described for use in interactive data includes being a Java application).

It would have been obvious to one of ordinary in the art at the time the invention was made to have been motivated to combine the use of interactive data in an information storage medium of Nonomura and Kanazawa with the use of interactive data comprising Java applications taught by Chung. One would have been motivated to do so for an improved versatility in program application

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languages used by including the use of Java for interactive reproduction data in the program data.

**Regarding claim 49**, Nonomura and Kanazawa further disclose using full mode data with core mode data communication with each other for interlocking the core mode data with the full mode data during reproduction (see Kanazawa col. 15, lines 34-45, Fig. 19A, interlocking interactive browsing data with core mode A/V data during reproduction), but use of an application program interface is not explicitly states. Chung discloses Chung discloses an information storage medium with interactive program data ([0008]), where the interactive data and core mode A/V data communicate by an application program interface ([0019]).

It would have been obvious to one of ordinary in the art at the time the invention was made to have been motivated to combine the use of interlocking full mode data and core mode taught of in an information storage medium taught by Nonomura and Kanazawa with the use of an application program interface for communication between different modes of data taught by Chung. One would have been motivated to do so for an improved communication between different modes of data in an information storage medium by use of an application program interface.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Okada et al. (US 2002/0194618 A1) - package technology and reproduction apparatus of video content

Kim et al. (US 2003/0081943 A1) - interactive DVD and reproduction with internet capabilities

Ogawa et al. (US 2001/0037459 A1) – playback of DVD with controllable restrictions

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK P. STANLEY whose telephone number is (571)270-3757. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark P Stanley/

/ABUL K. AZAD/

Primary Examiner, Art Unit 2626